

**Draft Summary of the Engineering and Operations Work Group Meeting
Oroville Facilities Relicensing (FERC Project No. 2100)
March 28, 2003**

The Department of Water Resources (DWR) hosted the Engineering and Operations Work Group (E&OWG) meeting on March 28, 2003 via video and teleconference between JOC, OFD, Room 601, MWD, and SJFD.

A summary of the discussions, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present an informational summary for interested parties who could not attend the meeting. The following attachments are provided with this summary:

Attachment 1 Meeting Agenda
Attachment 2 Meeting Attendees

Introduction

Attendees were welcomed to the E&OWG meeting. The meeting agenda and desired outcomes were reviewed. The meeting agenda and list of meeting attendees and their affiliations are appended to this summary as Attachments 1 and 2, respectively.

February 21, 2003 Meeting Summary and Action Items

A summary of the February 21, 2003 E&OWG meeting is posted on the relicensing web site. The Facilitator reviewed the status of action items from that meeting as follows:

Action Item EO#67
Status:

Review SP-E4 for language regarding flood control evaluations.
Curtis Creel, Operations Resource Area Manager (RAM) for DWR explained that he reviewed Study Plan E4 with Bill Lewis representing Yuba City immediately after the last E&OWG meeting and that DWR intends to use a scenario that includes additional flood storage potential behind Oroville Dam as one of several model "bookend" scenarios so the information that Yuba City is interested in would be available.

Overall Modeling Update

Curtis Creel, DWR Operations RAM, described the process DWR is developing to structure model "bookend" scenarios to frame the impacts to resources. He discussed examples of potential model "bookend" scenarios that include: (1) running all releases down the Low Flow Channel; (2) zero-to-maximum export scenarios; and (3) additional flood storage availability in winter months.

Ken Kules representing Metropolitan Water District reminded E&OWG participants of the dual responsibility of the E&OWG. The E&OWG is responsible for providing modeling support to the other Work Groups and evaluating potential resource actions related to operations of the Oroville Facilities and submitted through the Resource Action Identification Form process developed by the Plenary Group. Ken suggested the E&OWG wait to review the proposals stakeholders, including Yuba City, submit before model "bookend" scenarios are developed.

Maurice Roos with DWR's Division of Flood Management added that no more than an additional 50,000 acre-feet would be available under current spillway constraints.

Bill Lewis thought DWR agreed to investigate operational changes and evaluate the effect on other project purposes. Curtis clarified that DWR is not evaluating criteria changes but would look at some operational changes that could still meet the criteria. He reiterated his desire to bracket or “bookend” the parameters that define the flexibility in the system. DWR and the consulting team will develop proposed model “bookend” scenarios for review and discussion at the next E&OWG meeting.

A participant asked about the development of the Standard Project Flood (SPF) while developing the model to calculate the Probable Maximum Flood (PMF). Rashid Ahmad DWR Engineering RAM stated the Division of Engineering developed a model for deriving PMF but was not aware of an effort to identify SPF. Rashid will confirm the status and report back to the E&OWG.

Temperature Modeling Update

Carl Chen with the consulting team described the status of temperature model development and reminded E&OWG participants that the goal is to predict temperatures on an hourly basis in Lake Oroville, the Thermalito Complex, and in the Feather River downstream to the confluence of the Yuba River. The model will be calibrated to real-time data and simulated using hypothetical operational scenarios. He explained the model cut the Feather River into segments ranging from 400 to 1,600 meters with resolution increasing with proximity to the reservoir. The temperature modeling team also evaluated the Thermalito Diversion Pool, Thermalito Forebay and Thermalito Afterbay and found each facility to be stratified. The model predicts Power Canal and outlet temperatures and can predict the temperatures at the agricultural diversion locations. A written progress report explaining the status of temperature model development will be distributed to the E&OWG for review in advance of the next meeting.

Curtis noted that the primary purpose of a modeling study is to use it as a planning tool to compare options against a baseline scenario to evaluate perturbations to the system.

Flow-Stage Modeling Update

Eric Clyde with the consulting team described the status of flow-stage model development. Beginning with the Corp of Engineers’ Comprehensive Study 1997 and 1998 data sets, the flow-stage modelers updated the physical structures such as bridges, checked the assumptions, and calibrated the model using DWR gages at 2,000, 4,000, 6,000, and 10,000-cfs flows. DWR will distribute a draft report on the flow-stage model to the E&OWG in advance of the next meeting.

Eric explained that nine locations were used to validate the runs, calibrate, and modify the model. The consulting team has supplied rating curves to the terrestrial study leads for use in habitat evaluations. He noted that there is a discrepancy in the river mile notation with the flow-stage model following the Thalweg rather than the USGS river mile so a conversion for mapping will be used. Eric will provide cross-section samples and curves at the next E&OWG meeting. Robert Hughes with the Department of Fish and Game asked if the model data set could be made available. Curtis Creel will inquire if this is in the public domain and can be released.

Next Steps

Curtis informed E&OWG participants that he would begin attending Environmental Work Group meetings and would report the results of their resource action discussions to the E&OWG to determine modeling needs. The participants discussed the need to be updated on the process that has been developed to submit proposed resource actions. The Facilitator will provide the Resource Action Information Form and a sample for distribution to the E&OWG participants and a briefing on their use will be provided at the next E&OWG meeting. Curtis also informed the

participants that the local operations model, HYDROPS would be a discussion item on the next E&OWG Work Group meeting agenda. The E&OWG agreed their next meeting would be:

Date: April 25, 2003
Time: 10:00a.m. – 2:00 p.m.
Location: Oroville Field Division

Action Items

The following action items were identified by the E&OWG and includes a description of the action, the participant responsible for the action, and due date.

Action Item EO#68 Provide proposed model run “bookends” for review and discussion.
Responsible: DWR
Due Date: April 25, 2003

Action Item EO#69 Clarify whether Standard Project Flood (SPF) will be covered in Study Plan SP-E4.
Responsible: DWR
Due Date: April 25, 2003

Action Item EO#70 Discuss HYDROPS and Flow-Stage Model Development with E&OWG participants.
Responsible: DWR
Due Date: April 25, 2003

Action Item EO#71 Clarify if flow-stage model data set can be released to public.
Responsible: DWR
Due Date: April 25, 2003

Action Item EO#72 Provide Resource Action Identification Form to participants and review process for submittal of forms.
Responsible: DWR
Due Date: April 25, 2003